LIST OF PUBLICATIONS

Wu Li

July 22, 2004

PUBLICATIONS:

Monograph:

- W. Li, *CONTINUOUS SELECTIONS FOR METRIC PROJECTIONS AND INTERPOLATING SUBSPACES*, Approximation and Optimization, Vol. 1, Verlag Peter Lang, Frankfurt a.M. & Bern, 1991. (MR 93a:41067)

Refereed Journal Papers (SCI index was recorded in Nov. 2003):

1. W. Li and S. Krist, Spline-based airfoil curvature smoothing and its applications, submitted for publication in Journal of Aircraft (under revision), April 2004.

2. W. Li and S. Padula, Using high resolution design spaces for aerodynamic shape optimization under uncertainty, NASA/TP-2004-213004, 2004.

3. W. Li and J. de Nijs, An implementation of QSPLINE method for solving convex quadratic programming problems with simple bound constraints, Journal of Mathematical Sciences, 116 (2003), 3387–3410.

4. L. Huyse, M. Lewis, S. Padula, and W. Li, Probabilistic approach to free-form airfoil shape optimization under uncertainty, AIAA Journal, 40 (2002), 1764–1772.

5. W. Li, L. Huyse, and S. Padula, Robust airfoil optimization to achieve consistent drag reduction over a range of Mach numbers, Structural and Multidisciplinary Optimization, 24 (2002), 38–50.

6. J. Huband and W. Li, Reverse engineering of RAPID prototyping tool for aircraft wing design, Mathematical Engineering in Industry, 8 (2001), 239–252.

7. W. Li and I. Singer, Asymptotic constraint qualifications and error bound for semi-infinite systems of convex inequalities, in "Semi-Infinite Programming: Recent Advances", eds. Miguel A. Goberna and Marco A. López, Kluwer Academic Publishers, Dordrecht, 2001, pp. 75–100.

8. W. Li, C. Nahak, and I. Singer, Constraint qualifications for semi-infinite systems of convex inequalities and applications, SIAM J. Optim., 11 (2000), 31–52. (**SCI: 2**)

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12. H. Bauschke, J. Borwein, and W. Li, On the strong conical hull intersection property, bounded linear regularity, Jameson's property (G), and error bounds in convex optimization, Mathematical Programming, 86 (1999), 135–160. (**SCI: 7**)

13. F. Deutsch, W. Li, and J. Swetits, Fenchel duality and the strong conical hull intersection property, J. Optim. Theory Appl., 102 (1999), 681–695. (**SCI: 5**)

14. J. Huband and W. Li, An explicit representation of Bloor-Wilson PDE surface model by using canonical basis for Hermite interpolation, Mathematical Engineering in Industry, 7 (1999), 421–431.

15. M. Bartelt and W. Li, Abadie's constraint qualification, Hoffman's error bounds, and Hausdorff strong unicity, Journal of Approximation Theory, 97 (1999), 140–157. (**SCI: 1**)

16. D. Klatte and W. Li, Asymptotic constraint qualifications and global error bounds for convex inequalities, Mathematical Programming, 84 (1999), 137–160. (**SCI: 8**)

17. W. Li and J. Swetits, Regularized Newton methods for minimization of convex quadratic splines with singular Hessians, in "Reformulation: Nonsmooth, Piecewise Smooth, Semismooth and Smoothing Methods", edited by M. Fukushima and L. Qi, Kluker Academic Publishers, MA, 1999, pp. 235–257.

18. M. Finzel and W. Li, Uniform Lipschitz continuity of best ℓ_p-Approximations by polyhedral sets, Journal of Mathematical Analysis and Applications, 228 (1998), 112–118. (**SCI: 1**)

19. D. Marpe, H. L. Cycon, and W. Li, A complexity constraint best-basis wavelet packet algorithm for image compression, IEE Proceedings: Vision, Image and Signal Processing, 145 (1998), 391–398.

20. W. Li and J. Swetits, Linear ℓ_1 estimator and Huber M-estimator, SIAM Journal on Optimization, 8 (1998), 457–475. (**SCI: 11**)

21. W. Li and I. Singer, Global error bounds for convex multifunctions and applications, Mathematics of Operations Research, 23 (1998), 443–462. (**SCI: 8**)

22. M. Bartelt and W. Li, Characterization of generalized Haar spaces, Journal of Approximation Theory, 92 (1998), 101–115.

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24. W. Li and J. Swetits, A new algorithm for strictly convex quadratic programs, SIAM Journal on Optimization, 7 (1997), 595–619. (**SCI: 9**)

25. W. Li, Unconstrained minimization of quadratic splines and applications, in "Multivariate Approximation and Splines", G. Nürnberger, J. W. Schmidt, and G. Walz (eds.), Birkhäuser, Basel, 1997, pp. 113–128.

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28. R. Huotari and W. Li, Continuity of metric projection and geometric consequences, Journal of Approximation Theory, 90 (1997), 319–339. (**SCI: 3**)

29. W. Li, A merit function and a Newton-type method for symmetric linear complementarity problems, in "Complementarity and Variational Problems", Proceedings of International Conference on Complementarity Problems, held at the Johns Hopkins University, November 1–4, 1995, edited by M. Ferris and J.-S. Pang, SIAM, Philadelphia, 1997, pp. 181–203.

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32. W. Li, A conjugate gradient method for unconstrained minimization of strictly convex quadratic splines, Mathematical Programming, 72 (1996), 17–32. (**SCI: 4**)

33. W. Li, D. Naik, and J. Swetits, A data smoothing technique for piecewise convex/concave curves, SIAM Journal on Scientific Computing, Vol. 17 (1996), 517–537. (**SCI: 4**)

34. W. Li, Error bounds for piecewise quadratic programs and applications, SIAM Journal on Control and Optimization, 33 (1995), 1510–1529. (**SCI: 16**)

35. W. Li, Linearly convergent descent methods for unconstrained minimization of convex quadratic splines, Journal of Optimization Theory and Applications, 86 (1995), 145–172. (**SCI: 8**)

36. W. Li, Convergence of Pólya algorithm and continuous metric selections in space of continuous functions, Journal of Approximation Theory, Vol. 80 (1995), 164–179.

37. M. Bartelt and W. Li, Error estimates and Lipschitz constants for best approximation in continuous function spaces, Computers and Mathematics with Applications, Vol. 30 (1995), 255–268.

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39. W. Li, Sharp Lipschitz constants for basic optimal solutions of linear programs, SIAM Journal on Control and Optimization, Vol. 32 (1994), 140–153. (**SCI: 5**) (MR 94m:90110)

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45. W. Li, Remarks on convergence of matrix splitting algorithm for the symmetric linear complementarity problem, SIAM Journal on Optimization, Vol. 3 (1993), 155–163. (MR 93j:90118)

46. W. Li, P. Pardalos, and C. Han, Gauss-Seidel method for least distance problems, Journal of Optimization Theory and Applications, Vol. 75 (1992), 487–500. (**SCI: 12**) (MR 93j:90074)

47. W. Li, Best approximations in polyhedral spaces and linear programs, in "Approximation Theory", G. Anastassiou ed., Lecture Notes in Pure and Applied Mathematics, Vol. 138, Marcel Dekker, Inc., New York, 1992, pp. 393–400.

48. F. Deutsch and W. Li, Strong uniqueness, Lipschitz continuity, and continuous selections of metric projections in $L_1(T, \mu)$, Journal of Approximation Theory, Vol. 66 (1991), 198–224. (**SCI: 3**) (MR 92h:41054)

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1. W. Li and S. Padula, Approximation methods for conceptual design of complex systems, in "Proceeding of Eleventh International Conference on Approximation Theory," Gatlinburg, Tennessee, May 18–24, 2004i, C. Chui, M. Neamtu, and L. Schumaker (eds.), Nashboro Press, Brentwood, TN.

2. W. Li, S. Krist, and R. Campbell, Transonic airfoil shape optimization in preliminary design environment, in "10th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference," Albany, New York, 30 Aug – 1 Sep 2004. AIAA Paper 2004-4629, August 2004.

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5. S. Padula and W. Li, Options for robust airfoil optimization under uncertainty, 9th AIAA/ISSMO Multidisciplinary Analysis and Optimization Symposium, September 4–6, 2002, Atlanta, GA.

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